

Results on Acyclic Edge Coloring

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摘 要：

A proper k -edge coloring of a graph is said to be *acyclic* if any cycle is colored with at least three colors. The *acyclic chromatic index* of a graph G is the least integer k such that G has an acyclic k -edge coloring.

An *edge-list* L of a graph G is a mapping that assigns a finite set of positive integers to each edge of G . An acyclic edge coloring ϕ of G such that $\phi(e) \in L(e)$ for any $e \in E(G)$ is called an *acyclic L -edge coloring* of G . A graph G is said to be *acyclically k -edge choosable* if it has an acyclic L -edge coloring for any edge-list L that satisfies $|L(e)| \geq k$ for each edge e . The *acyclic list chromatic index* of G is the least integer k such that G is acyclically k -edge choosable.

In this talk, I will present some results of acyclic edge coloring and acyclic list edge coloring. And some generalizations of acyclic edge coloring will be introduced.